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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/662,443 | 09/16/2003 | Tomohiro Yamaguchi | 018656-678 | 9825 |

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| EXAMINER | |
|---|---|
| VO, QUANG N | |

| ART UNIT | PAPER NUMBER |
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| 2625 | |

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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

| Office Action Summary | Application No. | Applicant(s) | |
|---|---|---|---|
| | 10/662,443 | YAMAGUCHI ET AL. | |
| | Examiner | Art Unit | |
| | Quang N. Vo | 2625 | |

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☒ Responsive to communication(s) filed on *16 September 2003*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☒ Claim(s) *1-16* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-16* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *9/16/2003*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-16 are rejected under 35 U.S.C. 102(e) as being anticipated by Suzuki et al. (Suzuki) (US Patent 6,707,951).

The applied reference has a common assignee with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

With regard to claim 1, Suzuki discloses an image processing apparatus that handles image data (column 1, lines 13-15), comprising: a dividing unit which divides image data into large blocks of a prescribed size and further subdivides these large blocks into multiple smaller blocks (column 7, lines 28-47); a large block isolated point calculation unit which calculates the number of isolated points contained in each large block established by the dividing unit (column 7, lines 40-41); a small block isolated

point calculation unit which calculate the number of isolated points contained in each small block established by the dividing unit (column 7, 41-47 and column 10, lines 19-26); and a halftone-dot region determination unit which determines whether or not a large block is a halftone-dot region based on the number of isolated points calculated by the large block isolated point calculation unit and the number of the isolated points calculated by the small block isolated point calculation unit (column 8, lines 29-43).

With regard to claim 2, Suzuki discloses wherein said halftone-dot region determination unit determine that a large block is a halftone-dot region if the number of isolated points in the large block equals or exceeds a first prescribed value and the number of isolated points in each small block contained in the large block equals or exceeds a second prescribed value (column 8, lines 38-43 and column 10, lines 19-37).

With regard to claim 3, Suzuki discloses wherein said second prescribed value is smaller than said first prescribed value (column 10, lines 31-42). Here, threshold value is based on resolutions of image. The isolated points are reduced respecting to resolution.

With regard to claim 4, Suzuki discloses further comprising: an image processing unit which corrects the image data based on the results of determination by said halftone-dot region determination unit (column 7, lines 58-67).

With regard to claim 5, Suzuki discloses further comprising: an image forming unit which performs image formation based on the image data corrected by said image processing unit (column 8, lines 3-8).

With regard to claim 6, Suzuki discloses an image processing apparatus that handles image data (column 1, lines 13-15), comprising: a dividing unit which divides image data into multiple small blocks (column 9, lines 6-16); a small block isolated point calculation unit which calculate the number of isolated points contained in each small block established by the dividing unit (column 7, 41-47); a large block isolated point calculation unit which calculates the number of isolated points contained in the large block composed of multiple smaller blocks based on the small block isolated point totals calculated by the small block isolated point calculation units (column 7, lines 40-41); and a halftone-dot region determination unit which determines whether or not a large block is a halftone-dot region based on the number of isolated points calculated by the large block isolated point calculation unit and the number of isolated points calculated by the small block isolated point calculation unit (column 8, lines 29-43).

With regard to claim 7, Suzuki discloses wherein said halftone-dot region determination unit determine that a large block is a halftone-dot region if the number of isolated points in the large block equals or exceeds a first prescribed value and the number of isolated points in each small block contained in the large block equals or exceeds a second prescribed value (column 8, lines 38-43 and column 10, lines 19-37).

With regard to claim 8, Suzuki discloses wherein said second prescribed value is smaller than said first prescribed value (column 10, lines 31-42). Here, threshold value is based on resolutions of image. The isolated points are reduced respecting to resolution.

With regard to claim 9, Suzuki discloses further comprising: an image processing unit which corrects the image data based on the results of determination by said halftone-dot region determination unit (column 7, lines 58-67).

With regard to claim 10, Suzuki discloses further comprising: an image forming unit which performs image formation based on the image data corrected by said image processing unit (column 8, lines 3-8).

With regard to claim 11, Suzuki discloses an image processing method that handles image data (column 1, lines 13-15) comprising the steps of: dividing image data into large blocks of a prescribed size and further subdividing these large blocks into multiple smaller blocks (column 7, lines 28-47); calculating the number of isolated points contained in the large block established via division (column 7, lines 40-41) and the number of isolated points contained in the small block established via division (column 7, 41-47 and column 10, lines 19-26); and determining whether or not the large block is a halftone-dot region based on the calculated number of large block isolated points and the calculated number of small block isolated points (column 8, lines 29-43).

With regard to claim 12, Suzuki discloses wherein said determining step determine that a large block is a halftone-dot region if the number of isolated points in the large block equals or exceeds a first prescribed value and the number of isolated points in each small block contained in the large block equals or exceeds a second prescribed value (column 8, lines 38-43 and column 10, lines 19-37).

With regard to claim 13, Suzuki discloses wherein said second prescribed value is smaller than said first prescribed value (column 10, lines 31-42). Here, threshold

value is based on resolutions of image. The isolated points are reduced respecting to resolution.

With regard to claim 14, Suzuki discloses an image processing method that handles image data (column 1, lines 13-15) comprising the steps of: dividing image data into multiple small blocks (column 9, lines 6-16); calculating the number of isolated points contained in each small block established via division (column 7, 41-47); calculating the number of isolated points contained in the large block composed of multiple smaller blocks based on the calculated number of small block isolated points (column 7, lines 40-41); and determining whether or not the large block is a halftone-dot region based on the calculated number of large block isolated points and the calculated number of small block isolated points (column 8, lines 29-43).

With regard to claim 15, Suzuki discloses wherein said determining step determine that a large block is a halftone-dot region if the number of isolated points in the large block equals or exceeds a first prescribed value and the number of isolated points in each small block contained in the large block equals or exceeds a second prescribed value (column 8, lines 38-43 and column 10, lines 19-37).

With regard to claim 16, Suzuki discloses wherein said second prescribed value is smaller than said first prescribed value (column 10, lines 31-42). Here, threshold value is based on resolutions of image. The isolated points are reduced respecting to resolution.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Quang N. Vo whose telephone number is 5712701121. The examiner can normally be reached on 7:30AM-5:00PM Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Twyler M. Lamb can be reached on 5712727406. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Quang Vo

Quang N. Vo 4/27/07
Patent Examiner

TWYLER LAMB
SUPERVISORY PATENT EXAMINER